



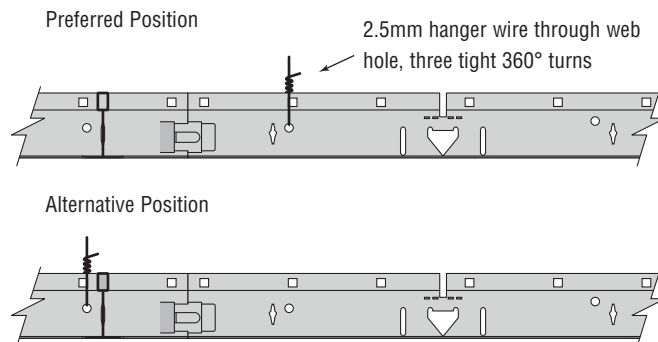
USG Fire Rated Exposed Grid Ceiling System

IN THE EVENT OF
FIRE, DO NOT USE
THE ELEVATOR
USE THE STAIRS

Installation

Suspension

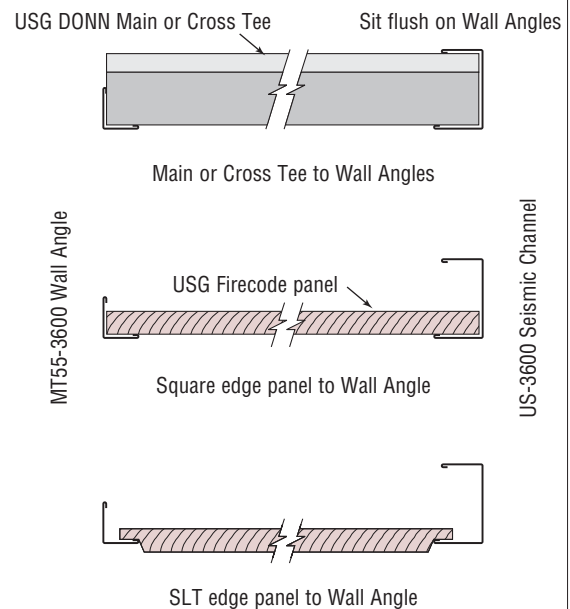
- 2.5mm diameter hanger wire shall be used and attached to the DONN DXL main tee through the web holes only. Ends are to be wound off three tight, 360° turns minimum. **Do not use bulb convenience holes or suspension clips.**
- Suspension must be at 1200 centres maximum.
- Provide a suspension hanger within 200mm of main tee expansion notch and connecting splice.
- Attachment of hanger wire to top structure fastener must also be three tight 360° turns minimum.



Perimeter Wall Angles

- DONN MT55-3600 22 x 19 mm or US-3600 Seismic Channel shall be used.
- Fixing of wall angles to wall shall use steel fasteners only.
- Fixing centres are to be 600 mm o.c maximum, 50mm from ends maximum (comment: although the MT55-3600 was attached at 600 mm centres for test evaluation, it is recommended to use closer spacing to minimise potential buckling).
- Butt joints were used at corners.
- Attachment of grid components to wall angle shall use steel rivets only (Note: steel type, size and quantity may be determined by seismic restraint requirements - ref *USG Seismic Design Guide*).
- Main and cross tees are to sit flush on the wall angles. Do not use the crimping method to joggle tee ends or any type of infill block for rebated USG Firecode acoustical ceiling panels. Where rebated ceiling panels are specified, field rebating of perimeter panels will be required to maintain ceiling fire insulation.

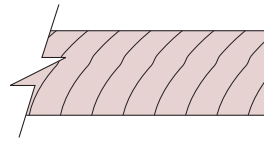
Details



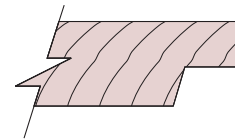
Installation

Fire Rated Acoustical Ceiling Panels

- Ceiling panels must be USG Firecode type FR-83, M, FR-4. This can include, but is not limited to:
 - USG Radar ClimaPlus Firecode
 - USG Radar ClimaPlus High NRC
 - USG Radar ClimaPlus High CAC
 - USG Clean Room ClimaPlus
 - USG Rock Face ClimaPlus
 - Square edge (SQ) or rebated Shadowline (SLT) may be used depending on options available.
 - 1200 x 600 or 600 x 600mm sizes can be used.
- Consult your regional USG ceiling specialist for local availability.



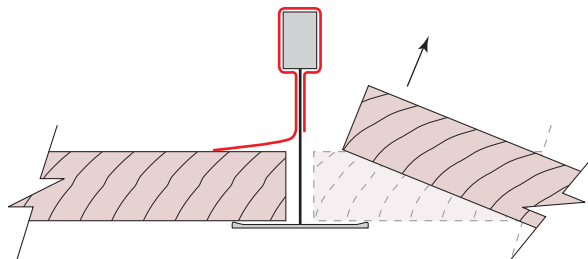
SQ



SLT

Clipping of Acoustical Panels

- Clips shall be used to increase resistance to unintentional dislodgement, or extreme pressure in a fire situation.
- Where access to specific locations in the plenum is desired, clips can be trimmed on the accessible panel side while still retaining the adjacent panel.
- Only steel clips are to be used such as L15 or similar.



Penetrations

- Any service penetrations through the fire rated constructions covered in this brochure must be fire stopped by approved methods in accordance with NZBC requirements, Control of Internal Fire and Smoke Spread C/AS1 Part 6.0.

In particular attention is drawn to:

- Clause 6.17.2 where firestops shall have a FRR no less than the fire separation assembly in which they are installed.
- Clause 6.17.7 penetrations are to be supported to resist movement or collapse during a fire to avoid failure of the seal. The support system shall not prevent normal expansion or contraction of the penetration.
- In addition penetrations and seals must not inhibit the controlled grid movement during a fire. Any penetrations must be supported independently from the grid or panels and are not to impose additional loads on either (except lights as page 10).
- Any penetration hardware shall have a FRR no less than the USG Fire rated ceiling system. If different, the lesser of the FRR's shall apply.

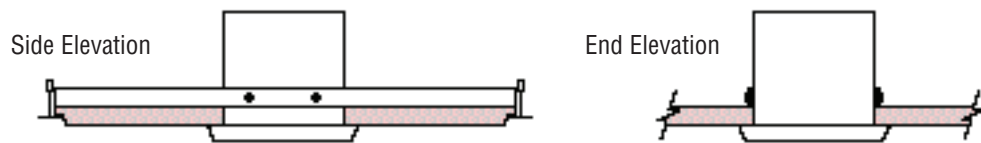
Installation

Lighting

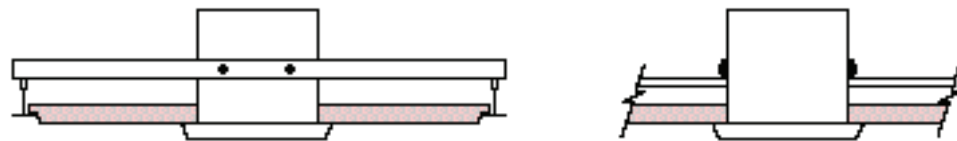
- Proprietary lighting options as listed are suitable for use with USG fire rated ceiling systems.
- Testing of these products was not conducted by USG Interiors Pacific Limited. For specific details, installation and limitations, consult the fitting supplier.
- These, or any approved alternatives, are not be supported by the acoustical ceiling panels. Their load shall be transferred back to the exposed grid by steel supports as examples a) and b) below. All other installation details shall comply with the suppliers requirements and relevant clauses under Penetrations.

Light Type	FRR	Company
Downlight - incandescent SDF125	60/60/60	Gartner Superlux Ltd PO Box 13-441, Onehunga, Auckland Phone 09-636-6092 Fax 09-634-6802

a) Simple supports across the back of the ceiling panel.

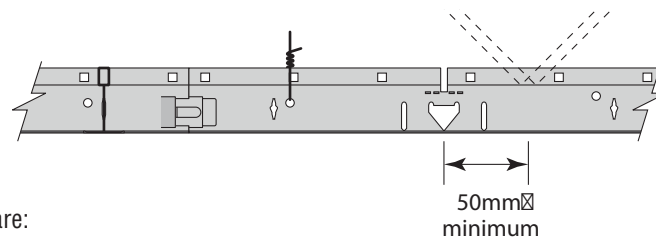


b) Simple supports onto the top the tee bulb.



Seismic Design

USG fire rated ceilings shall be subject to the same seismic restraint criteria as standard USG DONN exposed grid systems. Refer to USG's Seismic Design Guide.



Additional requirements are:

- When perimeter fixing, use steel fasteners only (not aluminium)
- When back-bracing is required, braces shall be at 3.6 metre centres in **main tee** direction. For different line loads, vary the type of brace product to suit the load. Cross tee direction brace spacing can vary to suit line load requirements.
- If line loads exceed standard bracing products, a specific design will be required – contact USG Interiors Pacific Ltd.
- For back-brace fixing, use steel fasteners only (not aluminium).
- Braces shall not be connected within 50mm of the fire rating notch of the main tee.



Fire Rating

Acoustical Ceiling Systems

Health and Safety	When handling, take care and ensure that safe work practices are adhered to at all times. Some products may have surface treatments and sharp edges/ends. All reasonable care should be taken when handling or installing to avoid any potential injury to self or others. Users should be properly trained and supervised in the use and handling of these materials. Appropriate personal protective equipment should be used when necessary eg: gloves/glasses etc, to avoid any potential injuries.
Handling and Storage	Store materials on a flat, dry surface and handle/store in a manner that will prevent distortion, scratches or damage of any kind by/to other trades.
Notes	<ul style="list-style-type: none">• In accordance with USG's policy of continuous product improvement, we reserve the right to alter specifications without prior notice• All sizes and weights are nominal• This document has been prepared on reliance of the professional testing, advice and services provided by independent specialist organisations, and USG Interiors Pacific Ltd believes the contents of this brochure to be correct at the time of printing. Whilst all care has been taken to ensure accuracy, except to the extent prohibited by law, no liability is accepted for any claim by any person, whether for loss of profits or for any other direct, consequential, indirect or special loss, damage or injury suffered by any person, and whether arising from any negligence or omission on the part of any person or otherwise directly or indirectly from the use of the information contained in this document.
Trademarks	The following are the registered or unregistered trademarks of USG Corporation or a related company: USG, DONN, DX, DXL Firecode.



To request literature, samples, a visit from a USG Ceilings specialist, or for all technical questions, call your nearest USG office below.



USG Australasia

© 2011

New South Wales

Phone:
Fax:

1800 226 215
1800 786 946

Queensland

Victoria

Auckland Head Office

Phone: (09) 270-2595
Fax: (09) 270-1799

Wellington

(04) 560 4528
(04) 560 4529

FR/6-11

email: info-anz@usg.co.nz or www.usg.co.nz